

Remarks

The present application includes claims 1-20. The Examiner rejected claims 1-20. By this amendment, claims 1-9, 11, 12, and 15-20 have been amended. Claims 10, 13 and 14 have been canceled.

The drawings were objected to as not showing features in the claims. In order to expedite prosecution of the present application, the Applicant has removed the objectionable language from the claim.

Claims 1-14 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Applicant has amended the claims and removed the language referenced in the Office Action.

Claims 1-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Breneman et al. (U.S. Patent No. 4,943,774) in view of Takeshima et al. (U.S. Patent No. 6,437,672).

The Applicant has amended claims 1-9, 11, 12, and 15-20 and canceled claims 10, 13 and 14. The claims have been amended to include a plurality of plates installed in a slot in a yoke.

Breneman presents a magnetic field control apparatus with movable segments mounted on a pole face (see Figures 6 and 7). To adjust the magnetic field, the movable

segments can be shimmed, removed or adjusted radially outward. Consequently, Breneman does not disclose or suggest a plurality of plates to be inserted in a slot in a yoke.

Takeshima discloses an apparatus with one or more holes in the yoke for focusing magnetic flux generated by superconducting coils. In Figures 15-20 of Takeshima, various yokes are shown with holes penetrating through the yokes. Some of the holes are tapered and some are threaded. In each embodiment illustrated in Takeshima, the objects used to fill the holes have a one-piece design. The pieces are not modular and do not allow for easy adjustment in the field.

For example, to adjust the field in Takeshima using the threaded bolt design, the entire threaded bolt must be inserted and/or removed. The threaded bolt design does not allow for convenient incremental fine tuning. If the threaded bolt used in Takeshima does not provide the desired field adjustment, the entire bolt must be removed and another bolt with different material properties must be installed.

The use of a plurality of plates in the present invention allows for incremental adjustment of the field without having to remove all of the plates in a slot each time an adjustment is made. The plates may be added/removed one at a time until the desired field is obtained. Such a modular concept reduces inventory by allowing for a few standard plates to be manufactured and conveniently combined in various fashions to produce the desired effect.

Because Takeshima presents a system with one-piece objects for filling the holes, Takeshima does not disclose or suggest installing a plurality of plates in a slot in a yoke.

Consequently, Takeshima does not disclose or suggest all of the limitations of amended independent claims 1 and 15.

Thus, the Applicant respectfully submits that amended independent claims 1 and 15, and respective dependent claims 2-9, 11, 12, and 16-20, should be in condition for allowance.

Conclusion

The Applicant looks forward to working with the Examiner to resolve any remaining issues in the application.

If the Examiner has any questions or the Applicant can be of any assistance, the Examiner is invited and encouraged to contact the Applicant at the number below.

The Commissioner is authorized to charge any necessary fees or credit any overpayment to the deposit account of GTC, account number 070845.

Respectfully submitted,

Dated: June 18, 2004



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